

## Today's Topics:

airport security  
Comments on the RS PRO-55 scanner...  
Down with S0239 connectors!!  
Field day rules...  
Ham radio software  
Looking for old radio parts  
New subject: Tesla vs gauss, and other obscure units  
Phone Patch Construction question  
PL259 connector assembly  
Tesla vs gauss, and other obscure units  
Voice of America Scheduled Broadcasts  
Wilson HT

-----

Date: 31 Oct 89 01:25:07 GMT

From: unmvax!deimos.cis.ksu.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!

phil@ucbvax.Berkeley.EDU

Subject: airport security

Generally most hams have not had much trouble, but there are some isolated incidents.

What I do is disassemble the HT from the battery pack, cover the contacts on the batteries (fully charged) with electrical tape to prevent accidental shorts and possible fire. I pack the components apart, but in the same suitcase (I only carry one). I've run it through X-ray and never been questioned or stopped.

DO NOT EVEN THINK OF ACTUALLY OPERATING THE HT ON BOARD THE AIRCRAFT, not even to listen. Walkman type stereos have been said to affect some navigation equipment. Maybe the walkman was at fault, but don't take a chance that it wasn't the nav gear.

--Phil Howard, KA9WGN--

<phil@ux1.cso.uiuc.edu>

-----

Date: 30 Oct 89 23:00:15 GMT

From: agate!shelby!lindy!allyn@apple.com (Ruby Lai)

Subject: Comments on the RS PRO-55 scanner...

I just bought one at a local RS clearance sale for \$21.80. It seemed like the right price for a 10 Ch. xtal scanner...so tell me (Hello Mr. Parnass! (-:)) did I get a lemon?

Would JAN/International/Crystek cut xtals for a RS scanner? RS wants \$4.98 per xtal...

Allyn Lai

kb6odf

allyn@lindy.stanford.edu  
allyn@cup.portal.com  
allyn@slacvm.bitnet

-----  
Date: 31 Oct 89 01:24:59 GMT  
From: unmvax!deimos.cis.ksu.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!  
phil@ucbvax.Berkeley.EDU  
Subject: Down with S0239 connectors!!

In article <25.Oct.89.17:15:08.BST.#3781@UK.AC.NWL.IA>  
PJML%UK.AC.NERC-WALLINGFORD.IBMA@CUNYVM.CUNY.EDU writes:  
>Why, oh why, do manufacturers insist on fitting PL259/S0239 connectors  
>to their gear? A more horrible connector for RF is hard to think of.  
>(anyone remember RCA Phono-plugs being used for RF wiring some years back?)  
>At anything above DC, the PL259 is horribly lossy and non-constant-impedance.  
>Unless you tighten them up real tight (like with a small pipe wrench!) they  
>unscrew themselves and oxidise after a few years.

I've found that not only does a PL259 work reasonably well at audio frequencies, but I've even used it up to VIDEO frequencies without a significant degradation of signal quality. After spending 45 minutes apiece getting the darned things soldered right, they better work.

I just recently obtained a Larsen Antenna catalog and notice they have a variety of connector types. Sure, PL's are listed first, by THEY DO make BNC's, N's, and even TNC's available.... EXCEPT on their VHF/UHF duplexer. OK, so I called up Larsen and asked them why they don't make it with N's or even BNC's. They said the unit would end up costing \$150 (with PL's it runs about \$50) and they could not sell it at that price. I've see type N connectors for chassis mount like they would need to use run for \$10 or less. Since the 3 connectors must be costing them \$100 more, that's \$33 apiece more than PL's. Then someone must be PAYING THEM \$23 apiece to use their PL's.

At least with the latest teeny-tiny breed of Japanese radios, they've had to pigtail the RF connector and run a short coax lead out the back of the radio where they stick on an S0239 type connector. At least they are making it easier to put a decent connector on.

TNC connectors are being used for cellular telephone systems at 800 Mhz.  
Why not the cheaper PL connectors if they are just as good?

Ethernet specifies type N connectors (BNC for thin) even at relatively lower frequencies. Things would surely have cost less if they had used PL's.  
Then even Radio Shack could sell Ethernet parts.

--Phil Howard, KA9WGN--  
<phil@ux1.cso.uiuc.edu>

-----  
Date: 31 Oct 89 01:24:55 GMT  
From: unmvax!deimos.cis.ksu.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!  
phil@ucbvax.Berkeley.EDU  
Subject: Field day rules...

> The station MUST be set up, from start to finish, by Novices/ Techs ONLY;  
> The station MUST be manned only by Novices/ Techs;  
> The station uses one of the Novice calls of the group operating it (not  
> the call the rest of the FD group is using.

Suppose the novice station is operating 10 meters and at a different time,  
the regular FD group operates 10 meters, AND several stations worked are  
worked via BOTH CALL SIGNS. Do both sets of contacts count (they would for  
the other guy since he has no way to know) or do they have to be DUPped?

--Phil Howard, KA9WGN--  
<phil@ux1.cso.uiuc.edu>

-----  
Date: 30 Oct 89 22:14:10 GMT  
From: hp-sdd!holt@hplabs.hp.com (Holt Mebane)  
Subject: Ham radio software

So now that I finally have a home computer to use with my station, anyone  
have any recommendations on good software? I want a logging program that  
can handle contests, DX, and whatever paper I may decide to chase. Any other  
ham-related software recommendations would also be appreciated. (Sattelite  
tracking, etc.) Thanks.

Holt Mebane, N4HR/6

-----  
UUCP : {hplabs|hp-pcd|hpfcla|hpda|noscvox|gould|ucsd}!hp-sdd!holt  
UUCP : {cbosgd|allegra|decvax|gatech|sun|tektronix}!hplabs!hp-sdd!holt  
ARPA : hp-sdd!holt@nosc.arpa  
CSNET : hp-sdd!holt@hplabs.csnet  
USmail: 16399 W. Bernardo Drive, San Diego CA 92127-1899 USA

Phone : (619) 592-4882

-----  
Date: 30 Oct 89 19:25:48 GMT  
From: vsi1!teraida!bob@apple.com (Bob Armstrong)  
Subject: Looking for old radio parts

The discussion of sources for parts brings to mind another question - can anyone recommend sources for vacuum tube components ? Restoring/building old radios is a growing sub-hobby of mine, and sources for vacuum tube related parts are becoming very hard to find. I'm specifically thinking of things like power transformers, audio output/interstage transformers, IF/RF transformers and coils, high voltage electrolytic capacitors, tubes and sockets, etc...

I'm already aware of Antique Electronic Supply, and while they're certainly a great place, their selection is a little limited. Are there any others ?

--  
Bob Armstrong                                   UUCP: {decwrl,sun}!teraida!bob  
Teradyne/EDA West                            Phone: (408) 980-5263  
5155 Old Ironsides Drive                   FAX:   (408) 748-7761  
Santa Clara, CA 95054

-----  
Date: 30 Oct 89 23:23:35 GMT  
From: ankleand@CAF.MIT.EDU (Andrew Karanicolas)  
Subject: New subject: Tesla vs gauss, and other obscure units

In article <851@ariel.unm.edu> ee5391aa@hydra.unm.edu.UUCP (Duke McMullan n5gax) writes:

>In article <1989Oct29.224736.2838@utzoo.uucp> henry@utzoo.uucp (Henry Spencer) >writes:

(lots of stuff deleted)

>Habit, I suspect, coupled with the natural conservatism that we all possess.  
>This will change. How many people do you know who know the peta- and exa-  
>prefixes, and the femto- and atto- prefixes? (Admittedly not useful to most  
>of us, unless you're measuring the circumference of Pluto's orbit in electronic  
>radii.....;^)  
>

In the microelectronics world, thinking in terms of femtofarads is fairly commonplace. For example, in calculations of gate-source capacitances for a minimum feature size MOS device. .

-----  
Date: 31 Oct 89 01:24:52 GMT  
From: unmvax!deimos.cis.ksu.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!  
phil@ucbvax.Berkeley.EDU  
Subject: Phone Patch Construction question

>From: SKOHC@CUNYVM.CUNY.EDU  
> I wonder if someone would take a moment and answer some not state-of-  
> the-art questions. I am thinking about setting up a private phone  
> patch on 2 meters. It would cover only about a 2 mile radius.  
                  ^^^^^^^^^^^^  
> My first question concerns the legality and accpetability of this.  
> Of course, I would make certain the freq is not used by a repeater,  
> or packet or any other group.

>From: tad@ssc.UUCP  
> Legality of this setup is questionable.

A simplex phone patch will consist of a TRANSMITTER (at the base) which is under REMOTE CONTROL by whoever is accessing the patch (usually at a remote location). FCC rule 97.213(a) specifies that remote control of an Amateur Station by radio must use an auxiliary station. In other words, you are operating an auxiliary station when you are remotely accessing the patch. FCC rule 97.201(b) specifies that an auxiliary station may transmit only on the 1.25m and shorter wavelength bands except 220.0-220.5, 431-433, and 435-438 Mhz segments.

>From: hendrick@frith.egr.msu.edu

> A dual band radio will work much better for a "simplex" autopatch. You  
> can avoid all that nasty sounding clicking, have 100% control over the  
> phone line 100% of the time, and have full duplex (just like a REAL  
> phone) also. No difference from a "cellular" phone, except you aren't  
> paying through the nose for it, and you can't use it for business use.

Sounds like a good solution to me. To make it legal, be sure the CONTROLLING station is transmitting on UHF or 220 and the base station is transmitting on 2 meters. The other way around would be violating 97.201(b) and 97.213(a) by operating a remotely controlled amateur station by other than an auxiliary station on frequencies authorized for auxiliary stations.

Simplex autopatches are quite tempting, and simple to set up, but NOT LEGAL on 2 meters because it would be REMOTE CONTROL via 2 meters. Taking the dual bander approach makes for a better patch, and gives you the chance to easily make sure it is legal.

--Phil Howard, KA9WGN--  
<phil@ux1.cso.uiuc.edu>

-----  
Date: 30 Oct 89 17:37:40 GMT  
From: cadre.dsl.pitt.edu!pitt!speedy.cs.pitt.edu!hoffman@pt.cs.cmu.edu (Bob Hoffman)  
Subject: PL259 connector assembly

In article <7880085@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:  
>you can never reuse the PL259  
>after you solder those four little holes on the side.

Sure you can! You just need a mongo soldering gun! I use an ancient Craftsman 250W unit. I also use nothing but silver-plated teflon-dielectric PL259s. As a rule, I much prefer type N connectors, but I don't like to modify equipment that comes supplied with PL259s. So, I figure that if I *must* use PL259s, I might as well use the best.

The only problems I've had in soldering to PL259s are with foam-dielectric coax. If you use RG213, RG214, Belden 9913, or some other polyethylene coax, then you won't have any trouble. The foam in Belden 8214, however, tends to expand when heated and it fills the space between the outer shield and the connector body making it difficult to solder. In those cases, I tin the braid before I put it in the connector being very careful not to use too much heat or to let the braid expand.

---Bob.

-----  
Date: 30 Oct 89 20:07:53 GMT  
From: shlump.nac.dec.com!koning.dec.com!koning@decwrl.dec.com (Paul Koning)  
Subject: Tesla vs gauss, and other obscure units

Tesla is the SI unit, gauss the (officially obsolete) unit from the CGS system. Why is it still used? Partly because we're in the USA, where the metric system is only barely understood. Partly because engineers and amateurs tend not to care much about consistency in units.

I still remember the grief I caught from my Physics prof. because I had the nerve to write up a lab report on gamma ray experiments with the energies listed in fJ (femtojoules) rather than his pet MeV (megaelectronvolts, a mishmash if ever I saw one).

Does all this matter, you ask? It sure does. I recently tried to

read an apparently well-regarded textbook on switching power supplies. The section on inductor design was totally unintelligible. The reason: careless random mixing of units, particularly centimeters or square centimeters vs. "circular mils" [sic].

paul, nild

PS. Remember the Hz vs. cps flaming in QST some years ago?

-----  
Date: 30 Oct 89 20:10:53 GMT  
From: cadre.dsl.pitt.edu!pitt!unix.cis.pitt.edu!nadst2@pt.cs.cmu.edu (Nilanjan Adhikari)  
Subject: Voice of America Scheduled Broadcasts

In article <302@voa3.UUCP> eab@voa3.UUCP (Al Brown) writes:

>-----  
>  
> 'Azi' is the azimuth of the signal's major lobe, in degrees  
> true, from the transmitting station.  
>

What does this azimuth say about the ease or difficulty to be expected in tuning a given station in USA (e.g. in the Northeast) ?  
I am a novice SW listener. Please help (anybody ! )

>--

>E. Allen (Al) Brown   VOA/BBC                               Voice of America  
                              ^^^

Is it possible for you (Mr. Brown) {or anyone else !} to post a similar list for BBC programs too ? It would be very helpful. Thanks.

-----  
Date: 30 Oct 89 17:35:02 GMT  
From: cadre.dsl.pitt.edu!pitt!speedy.cs.pitt.edu!hoffman@pt.cs.cmu.edu (Bob Hoffman)  
Subject: Wilson HT

In article <145@raider.MFEE.TN.US> root@raider.MFEE.TN.US (Bob Reineri) writes:  
>I tried to call Wilson, but they appear  
>to be out of business.

Your best bet is to get a replacement battery from a battery specialist such as Mr. Nicad (E. H. Yost Co.).

Wilson was bought out by Regency a couple of years ago. The new Regency HTs look just like the old Mark IVs on the outside; I don't

know if anything's changed on the inside or not. If you need replacement parts, you can probably get them from Regency.

---Bob.

-----  
End of INFO-HAMS Digest V89 Issue #826

\*\*\*\*\*